

REMARKS

Applicant respectfully requests reconsideration of this application, as amended herein. Claims 1-6 and 10-14 were pending in the application. In this amendment, Claim 1 has been amended and no claims have been canceled or added. Therefore, Claims 1-6 and 10-14 are pending in the application.

Double Patenting

The Examiner provisionally rejected Claims 1-6 under the judicially created doctrine of obviousness-type double patenting with respect to pending applications 10/393,346; 10/933,555; and 10/675,135. Applicant acknowledges the potential double patenting concern and will address the issue at an appropriate time.

The Rejections under 35 U.S.C. § 103

The Examiner has rejected Claims 1-6, 10, 11, 13 and 14 under 35 U.S.C. 103(a) as being unpatentable over Mucha (DE 195 03 027 A1) in view of Hilton et al. (EP 0 241 188 A1) and Friedank et al. (US 4,873,970). Applicant respectfully traverses the rejections.

Mucha teaches a respirator having a compressed air supply and a powered air supply/filter system with a sensor to sample the breathing air to the wearer. The Examiner asserts that essentially the differences between Mucha and the present invention are the lack of a regulator means in Mucha and the ability of the user to determine whether to breathe cleaned air or pressurized air. The Examiner further contends that Hilton et al. teaches the regulator means and Friedank et al. teaches the sensor means to generate a signal that will advise the wearer whether the gas emerging from the filter system has insufficient oxygen to be safely breathable. Actually, Friedank et al. teaches a warning device to indicate the end of useful life of a gas filter.

As amended herein, claim 1 requires that said control means particularly comprise “a sensor detecting an atmospheric condition and a switch in electronic communication with said sensor, said valve assembly, and said means adapted to move said ambient air” (as generally discussed in the specification of the published application at paragraph [0038]), in which the switch is “configured to selectively open and close *separate portions of said valve assembly* in

response to a predetermined reading from said sensor and to selectively start and stop said means adapted to move said ambient air” (emphasis added). Thus, in contrast to Much, the invention of claim 1 provides a control means that allows independent and separate opening and closing of valves regulating the flow of air to the mask from the tank and filter assemblies; as these actions are independent of one another, they may be simultaneously or nearly simultaneously engaged such that air is consistently delivered to the user without interruption. Such configuration is neither disclosed, taught, or even suggested by the prior art of record.

Claims 2-6 and 10-14 depend from Claim 1 and incorporates the same limitations as Claim 1, which, as described above, is patentably distinguished. Thus, Claims 2-6, 10, 11, 13, and 14 are, likewise, patentably distinguished.

The Examiner has rejected Claim 12 under 35 U.S.C. 103(a) as being unpatentable over Mucha in view of Hilton et al. and Friedank et al. and further in view of Hübner (US 5,018,518). Applicant respectfully traverses the rejection.

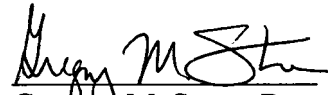
While claim 12 depends from claim 1 and is thus patentably distinguished for the reasons already set forth above, it is also the case that none of the references teaches a sensor means to detect particulate matter. The present invention describes and claims a breathing apparatus having two sources of air including a pressurized cylinder of breathable air and powered, filtered ambient air. The breathing apparatus also includes a sensor to determine whether the filter system is cleaning the air of particulate matter sufficiently, and means to switch to an alternate source of air when the sensor provides a signal indicating that the air is not clean. As the combination of references does not disclose all the elements of Claim 12, it is patentably distinguished.

CONCLUSION

Applicant has made a diligent effort to address the objections and rejections identified by the Examiner, and respectfully submits that the outstanding objections and rejections in the Office Action have been overcome. In view of the above amendments and remarks, all pending claims are believed to be patentable, and thus, the case is in condition for allowance. Accordingly, a Notice of Allowability is respectfully requested at the Examiner’s earliest convenience. In the event that there is any question concerning this response, or the application

in general, Applicant respectfully requests that the Examiner contact Applicant's attorney at the telephone number listed below so that additional changes may be discussed.

Respectfully submitted,

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